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(54) PROGRAMMABLE ELECTRICAL APPARATUS CONTAINING A
BATTERY

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No. OF CLAIMS 6

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ABSTRACT OF THE DISCLOSURE

An electrical apparatus enclosed within a housing which contains a replaceable battery, and is provided with means for programming and/or testing by means of connectable electrical contacts with an independent instrument. The electrical apparatus is provided with a composite unit comprising a battery support and an electrical terminal connector which is arranged to cooperate with a single small access port in the apparatus housing whereby routine servicing of battery replacements, programming and/or testing, can be performed through the single port.

10

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The embodiments of the invention in which an exclusive property or privilege is claimed are defined as follows:

1. A programmable electrical apparatus containing a replaceable battery, comprising:

a) an electrical apparatus containing a replaceable battery and having an electrically programmable system therein;

b) a housing for enclosing said apparatus having a small access port therein for the installation and removal of replacement batteries and the insertion of a terminal coupling member of a programming instrument; and

c) a composite unit including an integral battery supporting receptacle and an integral electrical terminal connector for making electrical contact with a terminal coupling member of a programming instrument, said battery supporting receptacle and terminal connector of the unit being positioned inside the housing of the apparatus concentrically aligned with the access port of the housing and within a circumferential area smaller than the periphery of the access port, whereby replacement batteries can be installed through said access port in the housing and into the integral battery support receptacle and a terminal connecting member of a programming instrument can be inserted through said access port in the housing for mating in electrical contact with the integral terminal connector of the apparatus.

2. The programmable electrical apparatus of claim 1, wherein the integral electrical terminal connector comprises a bank of individual electrical terminals.

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3. A programmable electrical apparatus containing a replaceable battery, comprising:

a) an electrical apparatus containing a replaceable battery and having an electrically programmable system therein;

b) a housing for enclosing said apparatus having a single small access port therein for the installation and removal of replacement batteries and the insertion of a terminal coupling member of a programming instrument; and

c) a composite structural unit including an integral battery supporting receptacle and an integral electrical terminal connector having a plurality of individual electrical terminals arranged about the battery support receptacle for making electrical contact with a terminal coupling member of a programming instrument, said battery supporting receptacle and plurality of individual electrical terminals of the electrical terminal connector of the unit being positioned inside the housing of the apparatus concentrically aligned with the access port of the housing and within a circumferential area smaller than the periphery of the access port, whereby replacement batteries can be installed through said access port in the housing and into the integral battery support receptacle and a terminal connecting member of a programming instrument can be inserted through said access port in the housing for mating in electrical contact with the integral terminal connector of the apparatus.

4. The programmable electrical apparatus of claim 3, wherein the integral electrical terminal connector comprises an arcuate bank of individual electrical terminals arranged in a peripheral pattern about the battery support receptacle.

5. A programmable, electrical watthour meter apparatus containing a replaceable battery, comprising:

a) an electrical watthour meter containing a replaceable battery and having an electrically programmable system therein;

b) a housing for enclosing said watthour meter having a single small access port therein for the installation and removal of replacement batteries and the insertion of a terminal coupling member of a programming instrument; and

c) a composite structural unit including an integral battery supporting receptacle and an integral electrical terminal connector having a plurality of individual electrical terminals arranged about the battery support receptacle for making electrical contact with a terminal coupling member of a programming instrument, said battery supporting receptacle and plurality of individual electrical terminals of the electrical terminal connector of the unit being positioned inside the housing of the watthour meter concentrically aligned with the access port of the housing and within a circumferential area smaller than the periphery of the access port, whereby replacement batteries can be installed through said access port in the housing and into the integral battery support receptacle and a terminal connecting member of a programming instrument can be inserted through said access port in the housing for mating in electrical contact with the integral terminal connector of the watthour meter.

6. The programmable electrical watthour meter apparatus of claim 5, wherein the integral electrical terminal connector comprises an arcuate bank of individual electrical terminals arranged in a peripheral pattern about the battery support receptacle.

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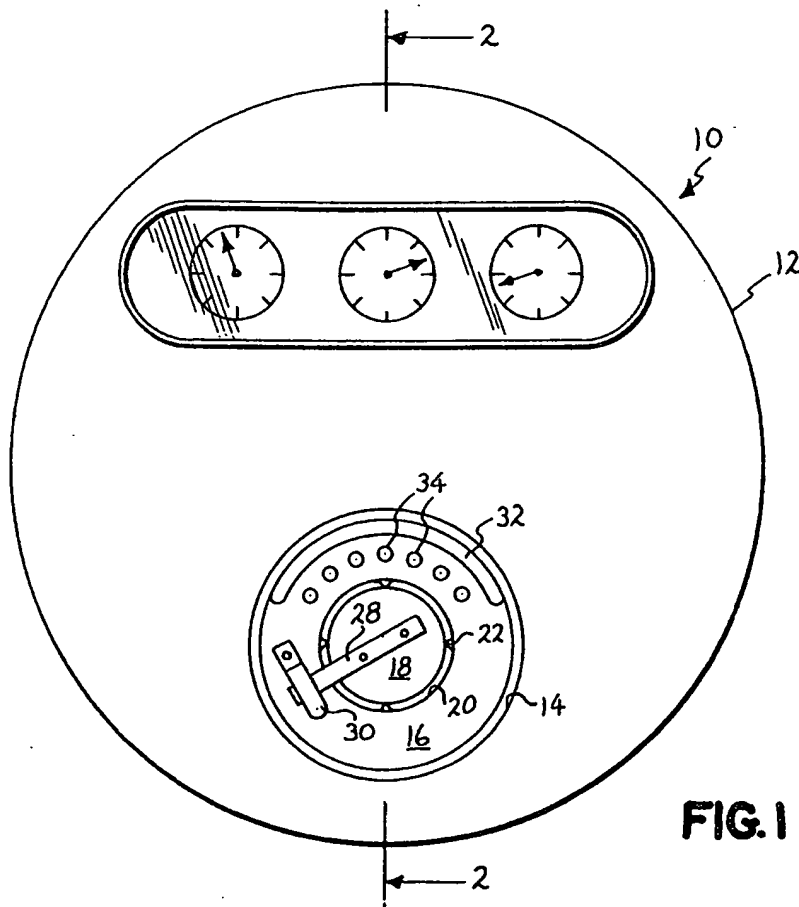


FIG. 1

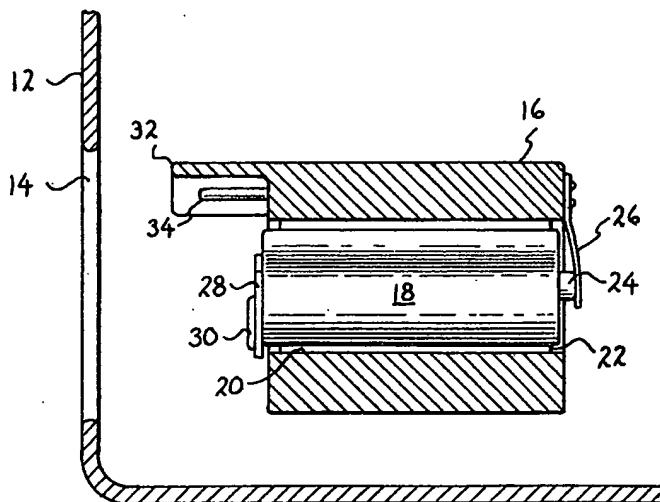


FIG. 2

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